

**WHAT IS CLAIMED IS:**

1. A method for selecting one of a plurality of mobile stations by a base station having a plurality of transmitters, each of the transmitters having a retransmission buffer for storing retransmission data and an initial transmission buffer for storing initial data, the plurality of transmitters being capable of providing a data service to associated mobile stations, the base station providing a data service to the selected one of the mobile stations based on C/I (Carrier-to-Interference ratio) information from the mobile stations, comprising the steps of:
  - analyzing the retransmission buffers and the initial transmission buffers in the plurality of transmitters associated with the mobile stations having transmitted at least two C/I information, when at least two C/I information are equal to each other, and selecting a mobile station associated with a retransmission buffer in which retransmission data is stored, when the retransmission data is stored in said retransmission buffer among the retransmission buffers of the plurality of transmitters;
  - selecting a mobile station associated with a transmitter transmitting data having a high priority among the transmitters associated with at least two retransmission buffers, when the retransmission data is stored in at least the two retransmission buffers among the retransmission buffers of the plurality of transmitters; and
  - selecting a mobile station associated with a retransmission buffer having a longest data length among the retransmission buffers in the two transmitters, when there exist at least two transmitters transmitting data having a high priority.
2. The method as claimed in claim 1, further comprising the step of retransmitting the transmitted data upon failure to receive a response signal from the mobile station within a predetermined time after transmitting the data stored in the transmitter associated with the selected mobile station.

3. The method as claimed in claim 1, further comprising the step of retransmitting only previously failed data when a response signal received from the mobile station within a predetermined time after transmitting the data stored in the transmitter associated with the selected mobile station indicates that an  
5 error has occurred in part of the transmitted data.

4. The method as claimed in claim 1, wherein the base station selects one of the transmitters excluding a transmitter currently transmitting data to the current mobile station.

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5. The method as claimed in claim 1, wherein the base station selects one of the transmitters excluding transmitters whose response waiting time has not expired after transmitting data.

15 6. A method for selecting one of plurality of mobile stations by a base station having a plurality of transmitters, the number of the transmitters being equal to the number of the mobile stations for transmitting the data, each of the transmitters having a retransmission buffer for storing retransmission data and an initial transmission buffer for storing initial data, the plurality of  
20 transmitters being capable of providing a data service, the base station providing a data service to the selected one of the mobile stations based on C/I (Carrier-to-Interference ratio) information from the mobile stations, comprising the steps of:

selecting by the base station a transmitter having a highest C/I received from the mobile stations among the transmitters other than transmitters having no  
25 data and transmitters whose response waiting time has not expired after transmitting data, and transmitting data to the selected mobile station.

7. The method as claimed in claim 6, wherein the base station selects a transmitter with a queue having a high priority among the transmitters,  
30 when the number of the transmitters selected based on the C/I received from the

mobile station is larger than 2.

8. The method as claimed in claim 7, wherein the base station selects a transmitter having a longer data length among the transmitters, when the  
5 number of transmitters selected according to the priority is larger than 2.

9. The method as claimed in claim 6, further comprising the step of retransmitting the transmitted data upon failure to receive a response signal from the mobile station within a predetermined time after transmitting the data stored  
10 in the transmitter associated with the selected mobile station.

10. The method as claimed in claim 6, further comprising the step of retransmitting only previously failed data when a response signal received from the mobile station within a predetermined time after transmitting the data stored  
15 in the transmitter associated with the selected mobile station indicates that an error has occurred in part of the transmitted data.